

SYSTEM AND METHOD FOR CONTROL OF FLUID DISPENSE PUMP

Abstract of the Disclosure

In a fluid pump and cartridge assembly, a cartridge includes a material inlet port, a material outlet port, and a feed screw. The feed screw delivers fluid to be dispensed from the fluid inlet to the outlet port. The fluid inlet is preferably elongated in a direction along a longitudinal axis of the feed screw to enhance consistency in material flow through the cartridge. The feed screw is preferably driven by a closed-loop servo motor to achieve high-performance dispensing resolution. The assembly is preferably compatible with fixed-z and floating-z cartridges. A optional vented dispense tip, in combination with the fluid pump, allows for repeatable deposit of fillet patterns while maintaining optimal consistency. A dispense controller allows for reverse-compatibility such that the fluid pump of the present invention can be mounted to, and controlled by, conventional pump position controllers.

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